

**MATERNITY DISCHARGE:**  
**A Report to the Massachusetts Legislature**

**Massachusetts Department of Public Health  
Bureau of Family and Community Health**

**November 1998**

# **MATERNITY DISCHARGE**

## **A Report to the Massachusetts Legislature**

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**TABLE OF CONTENTS**  
**Maternity Discharge Report**

	Page
Summary	i
Introduction	1
The Regulations	2
Purpose Of The Evaluation	3
Methods	3
Limitations Of This Evaluation	4
Key Findings	5
Conclusions	15

## SUMMARY

In response to concerns about “drive through deliveries,” and the impact of very short hospital stays on the health and well-being of new mothers and infants, the Massachusetts State Legislature enacted Chapter 218 of the Acts of 1995, the Childbirth and Postpartum Care Benefits Law. Signed into law in November, 1995, Chapter 218 governs the minimum length of time mothers and newborns may stay in the hospital following childbirth, and provides the option of a home nursing visit to women who are discharged “early”. It is estimated that about half of the births in Massachusetts are covered by insurance plans that are exempt from state law under the federal Employee Retirement Income Security Act of 1974 (ERISA). Emergency regulations promulgated by the Massachusetts Department of Public Health (MDPH) were issued on February 2, 1996, and final regulations went into effect on May 17, 1996. Subsequently, the Legislature commissioned MDPH to evaluate the implementation and effect of the state law. This report highlights the findings of the evaluation.

On January 1, 1998, a federal law governing maternity length of stay went into effect. The federal law requires all insurance companies regardless of ERISA status to pay for a minimum hospital stay of 48 hours following a vaginal delivery and 96 hours following a cesarean section delivery. A decision to leave early must be made jointly by the mother and her provider. Anyone who is discharged prior to these minimum times is considered to have been discharged early. The Massachusetts law goes further, however. It requires that mothers who are discharged early be offered a home nursing visit and puts in place an appeals process for families who feel their rights have been denied under the law. While the federal law ensures that all insurance plans cover the minimum hospital stays, insurance plans that fall under ERISA continue to be exempt from having to provide coverage for the home visit.

This comprehensive evaluation gathered information through a variety of sources. Surveys of a random selection of mothers who delivered healthy newborns in 1996, obstetricians, certified nurse midwives, pediatricians, and Massachusetts maternity hospitals were conducted. In addition, post-partum nurses and home care agency staff were interviewed. Results from the mothers’ survey include women covered under ERISA and non-ERISA health insurance plans.

In general, the Massachusetts early discharge law appears to have been implemented successfully and has been well received by families and providers. These findings reflect the experience prior to the implementation of the federal law.

### Major Findings:

#### Discharges of mothers and newborns:

- About half (48%) of the mothers surveyed were discharged early from the hospital. Sixty percent of mothers who had c-sections were discharged early compared to 45% of mothers who had vaginal deliveries. Only 2% of all mothers were discharged less than 24 hours following the birth of their child. About 25% of mothers felt their stay was too short, regardless of whether or not they were discharged early.

- Among the mothers who were discharged early, 41% received a home nursing visit. Virtually all eligible mothers who did not receive a home visit reported they felt it was not necessary.
- Most (86%) of the home visits occurred within 48 hours of discharge, as required by law. Primary reasons cited by home care agency staff for delayed visits were late referrals from hospitals and scheduling difficulties with the mothers. Among women with known time of discharge, only two of the mothers surveyed who were discharged between 8 p.m. and 8 a.m. reported it was not their choice to leave at that time. To date, MDPH has received no appeals for denial of benefits.

#### Length of stay and breastfeeding practices:

- Women discharged early who did not receive a home visit discontinued breastfeeding earlier than women who received a visit or who stayed in the hospital for the minimum time required by the law.

#### Awareness of the law:

- Knowledge of the minimum length of stay provision was quite high among mothers and providers, but awareness of specific provisions of the law was lower. The majority of mothers reported they were aware of the early discharge law in general before they were admitted to the hospital, but only half were aware of the home visit option. In general, pediatricians reported they were less familiar with each of the various provisions of the law compared to obstetric providers, and all three groups were least familiar with the exemption of self-funded insurance plans from having to pay for the minimum stay and home visit benefits<sup>1</sup>.
- Greater efforts to inform women of their rights under the law may be necessary. Only 41% of surveyed women reported that someone from the hospital talked to them about the law and their length of stay while they were in the hospital, and even fewer (25%) remembered talking to their obstetric provider about these issues. In addition, about 30% of the mothers who were discharged early said they were not asked whether or not they wanted a home visit before they left the hospital.

#### Assessment of the law:

- Most providers reported they agree that mothers and infants generally have benefited from the regulations on length of hospital stay and home visits. 95% of obstetric and pediatric providers reported that home visits are important for women who are discharged early.
- Three-quarters of the women felt their length of stay was “about right”, and 24% felt it was “too short.” Regardless of whether or not they were discharged early, the vast majority of women felt they got enough information during their hospital stay about key issues. Almost all women who were discharged early and received a home visit found the visit helpful.

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<sup>1</sup> Employee-sponsored, self-funded health plans are not subject to state regulation under the federal Employee Retirement Income Security Act of 1974 (ERISA), and therefore were exempt from the minimum stay requirement prior to enactment of the federal law, and are still exempt from the home visit requirement.

The law and provider practice:

- Only one-third of surveyed obstetricians and nurse midwives reported they discuss length of stay with all of their patients, and over one-third of all providers did not know whether or not their early discharge patients received a home visit.

System issues:

- No appeals for denial of benefits have been filed with MDPH to date.
- The capacity of home care agencies to meet the demand for home nursing visits to new mothers and their newborns appeared to be sufficient at the time of the study.
- Nine of the 10 home care agencies interviewed reported delayed referrals from hospitals as one reason a home visit may not have occurred within 48 hours of discharge.
- Over one third of obstetric and pediatric providers surveyed reported they did not know whether or not their early discharge patients received a home visit.

## INTRODUCTION

Since 1970, the length of time women and newborns spend in the hospital after birth has declined dramatically<sup>2</sup>. Reasons for this decline are related to changes in attitudes toward childbirth and medicine, as well as improvement in medical technology and infant health. In recent years, increased interest on the part of health insurers and managed care plans to contain costs has resulted in many health plans limiting maximum maternity stay to 24 hours<sup>3</sup>. As awareness of the trend toward shorter stays grew, so did concern about its impact on the health and well being of newborn infants and their mothers.

In response to these concerns, more than half of the states, Massachusetts among them, passed laws governing maternity stays. The legislation enacted by the Massachusetts Legislature and signed by then-Governor Weld, mandates a minimum stay for both mothers and newborns of 48 hours following vaginal births and 96 hours following cesarean section deliveries. In accordance with American Academy of Pediatrics (AAP) criteria, mothers and newborns leaving the hospital prior to these minimum lengths of stay are considered to have been discharged early. The Massachusetts law also gives women who leave the hospital early the right to a home visit by a registered nurse or physician.

Employee health insurance plans, including plans falling under the Group Insurance Commission and the Massachusetts Medicaid Program, are required to pay for these minimum stays and home visits. However, it is estimated that about half of the births in Massachusetts are covered by insurance plans that are exempt from this law. Employee-sponsored, self-funded health plans are not subject to state regulation under the federal Employee Retirement Income Security Act of 1974 (ERISA), and, therefore, are exempt from the Commonwealth's minimum stay and home visit requirements.

A federal law mandating insurance companies to pay for a 48/96-hour minimum maternity stay went into effect on January 1, 1998. Because this law applies to all insurance plans, previously exempt plans in Massachusetts are now required to provide this benefit to their customers. The federal law does not, however, mandate payment for any follow-up care for women and infants who are discharged early, which leaves open the possibility that self-funded plans will continue to be exempt from having to pay for the home visit benefit in Massachusetts.

The Massachusetts law places regulatory power with the Department of Public Health (MDPH). Emergency regulations were issued on February 2, 1996, and final regulations went into effect on May 17, 1996. Subsequently, the Legislature commissioned the Department of Public Health to conduct an evaluation of the law and regulations. This report presents the findings of that evaluation. These findings reflect the experience prior to the implementation of the federal law. A longer, technical report also is available from the Bureau of Family and Community Health.

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<sup>2</sup> CDC. Trends in length of stay for hospital deliveries - United States, 1970-1992. MMWR. 1995;44:335-7.

<sup>3</sup> Braveman, P. Short hospital stays for mothers and newborns. J Fam Pract. 1996;42(5):523-5.



## THE REGULATIONS

The following key provisions are included in the final regulations governing early maternity discharge:

- The minimum length of in-patient stay for mothers and infants is 48 hours following a vaginal delivery and 96 hours following a cesarean section and no discharge may occur between 8 p.m. and 8 a.m. without the mother's consent. Decisions to discharge early must be made with the attending practitioners for both mother and infant in consultation with and upon agreement by the mother.
- Mothers and infants who participate in early discharge are eligible to receive a minimum of one home visit, which must occur within 48 hours following discharge.
- Hospitals must provide a written description of the state law to inform mothers of their rights, at the time of admission and with any pre-registration materials. Included must be information about the right to appeal any denial of benefits, and the availability of a toll-free appeal telephone line.
- Hospitals must develop a comprehensive written discharge plan for mothers and newborns who will be discharged early, create protocols for the transfer of pertinent clinical information concerning the mother and infant to the professional or agency providing the home care services, document any services refused by the mother, and designate a contact person(s) for receiving all notifications from the Department of Public Health regarding appeals.
- Insurance carriers are required to notify those they insure of their benefits under the law.

In accordance with the law, the Massachusetts Department of Public Health's Bureau of Family and Community Health, set up two telephone information lines on February 19, 1996, to answer questions related to the early discharge regulations. One of these telephone lines is a 24-hour-a-day toll-free line to provide prompt response to women who feel that their rights under the regulations have been violated. An appeals process was put in place for women who believe their discharge and subsequent follow-up care were not in accord with the regulations. A second line was designated to provide general information about the regulations to consumers, hospital staff, and insurers.

Educational materials that explain patients' rights under the law and publicize the toll-free telephone number were developed by MDPH and made available to all maternity hospitals. This information was provided in the ten languages most commonly spoken by Massachusetts residents. In addition, model guidelines and sample hospital referral forms for early discharge home visits were developed and sent to the maternity hospitals. Staff from the Massachusetts Division of Insurance also were assigned to respond to questions about coverage and exemptions.

## PURPOSE OF THE EVALUATION

The purpose of this evaluation is to assess the implementation and impact of the early discharge regulations. Information was gathered to answer the following questions:

- 1) How long are mothers staying in the hospital following childbirth?
- 2) Are mothers who are discharged early receiving a home visit?
- 3) What is the distribution of new mothers according to whether or not they were discharged early and whether or not they received a home visit?
- 4) Are mothers aware of the law and regulations, and how and when do they learn about them?
- 5) Are providers aware of the law and regulations, and how and when do they learn about them?
- 6) How are decisions being made about when new mothers and infants leave the hospital?
- 7) How satisfied are new mothers with the length of their hospital stay and with their home visit?
- 8) Does length of stay and home visiting have an impact on breastfeeding practices?
- 9) How do health care providers feel about the regulations?
- 10) What impact have the regulations had on provider practice?
- 11) What has been the impact of the early discharge legislation on the current health care delivery system and what health systems issues have affected implementation?

## METHODS

The evaluation included the following components:

- 1) A mail survey conducted during April and May 1997, of randomly selected new mothers who had uncomplicated vaginal or cesarean-section deliveries in Massachusetts hospitals between October 1, 1996, and December 31, 1996. Eight hundred fifty-five (855) eligible responses were received for a response rate of 68%. Women covered under both ERISA and non-ERISA health insurance plans were included.
- 2) Mail surveys conducted during April and May 1997, of randomly selected obstetricians, certified nurse midwives and pediatricians licensed in the Commonwealth of Massachusetts. Four hundred twelve (412) eligible responses were received for an overall response rate of 64%.<sup>4</sup>
- 3) In-depth telephone interviews with ten post-partum hospital nurses and ten home care agency staff conducted during July and August 1997.
- 4) A mail survey conducted in mid-1996, of all maternity hospitals in Massachusetts. Forty-six (46) out of 55 hospitals responded.

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<sup>4</sup> The response rate among provider groups varied. It was 60% among obstetricians (n=189), 82% among nurse midwives (n=64), and 63% among pediatricians (n=159).

- 5) A review of appeals, questions, and complaints about the law and regulations received by the Department of Public Health on the help/information telephone lines between February 19, 1996, and January 31, 1997.

The new mother survey and the provider surveys were developed by the MDPH evaluation team, with consultation from the Center for Survey Research (CSR) at the University of Massachusetts, Boston. CSR also oversaw all aspects of the survey mailings, follow-up and data entry, provided consultation on the development of the interview forms for both the post-partum nurse and home care agency staff interviews, and conducted the telephone interviews. The hospital survey and the review of the telephone calls were carried out by MDPH.

## **LIMITATIONS OF THIS EVALUATION**

The results of this study rely in large part on recollection and the opinion of people who chose to respond to the surveys. For example, although the initial mailing went to a random group of mothers who were representative of all women who had uncomplicated deliveries at the end of 1996, and in spite of the relatively high response rate (68.2%), there were differences in certain characteristics between women who responded to the survey and those who did not respond. To the extent that the respondents are not representative of all new mothers or all obstetric and pediatric providers in the state, the findings may not be generalizable to the Commonwealth as a whole.

Furthermore, as with any retrospective survey based on memory, one must be aware that there may be incongruities between what actually happened and what is reported. For instance, mothers were asked when they learned about the law and whether they received any information verbally or in writing from their provider, the hospital or their insurance plan. These events took place between four and seven months prior, depending on their delivery date, and at a time when they were receiving a lot of information about many issues. It is possible, therefore, that the percentage of women who received information about the law from their hospital is higher than that reported here. At the same time, the fact that so few women remember receiving anything in writing may be indicative of a need for more effort to inform consumers of their rights.

It was not possible to determine whether or not individual respondents had health insurance that was exempt under ERISA. Most people do not know themselves whether or not they are in a self-insured plan, and there is no easy way to find out. Therefore, it was not possible to examine the difference between women who were covered by insurance plans that were exempt from the law, and women whose insurance was not exempt.

Because neither birth certificates nor hospital discharge data contain exact time of discharge, it was not possible to calculate the change in length of stay as a result of the regulations. This evaluation provides baseline data, however, which will make it will be possible to monitor change in length of stay in the future.

## KEY FINDINGS

### *1. How long are mothers staying in the hospital following childbirth?*

#### *Findings:*

- **Nearly half (48%) of all women surveyed who had uncomplicated deliveries in the last quarter of 1996 were discharged from the hospital early.<sup>5</sup>**
  - Sixty percent (60%) of women who delivered by cesarean section (c-section) were discharged early compared to 45% of women who had vaginal deliveries.
  - The proportion of women discharged early was substantially higher among women from the western region of the state compared to women from Boston, the northeast, or the western metropolitan Boston regions.
  - Early discharge was not related to parity (number of previous live births), race, age, education, marital status, managed care, or the level of the delivery hospital.<sup>6</sup>
- **Only 2% of the mothers (n=19) who responded to the survey were discharged less than 24 hours after giving birth.**
- **Overall, the average length of stay was 49.5 hours after vaginal births (range: 5-115 hours) and 91.2 hours after c-sections (range: 44-175 hours).**

#### *Comment:*

Although it is not known what percentage of women and infants were discharged early prior to the regulations taking effect, the obstetric and pediatric providers, and post-partum nurses who participated in this evaluation, reported that more women are remaining in the hospital longer since the state law was implemented.

Laws mandating minimum lengths of stay were passed, in part, to prevent what have commonly been referred to as “drive through deliveries”, that is, women who are discharged from the hospital less than 24 hours after giving birth. The results of this survey indicate that during the study period, these very short hospital stays occur rarely in Massachusetts.

At the same time, nearly 25% of women surveyed would have preferred to stay longer in the hospital, regardless of whether or not they were discharged early. Some women reported they left early because their insurance did not cover the minimum length of stay (LOS). Others reported they left early to take care of other children, or for reasons not related to the regulations.

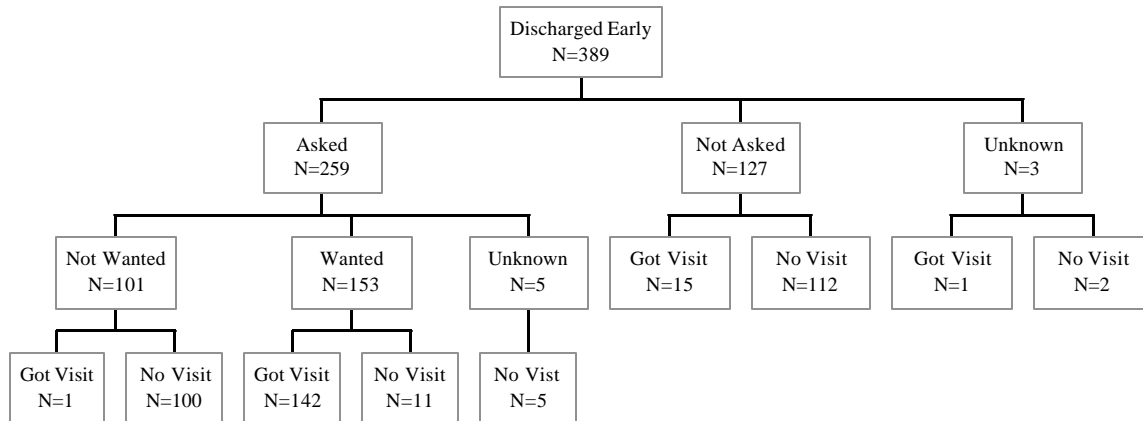
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<sup>5</sup> Early discharge is defined as discharge from the hospital less than 48 hours following a vaginal delivery or less than 96 hours following a c-section. Total number discharged early = 389.

<sup>6</sup> Maternity hospitals are designated according to 3 levels of care: Level 1 hospitals provide basic newborn care; Level 2 hospitals have special care nurseries; and Level 3 hospitals have neonatal intensive care units.

## 2. Are mothers who are discharged early receiving a home visit?

Figure 1. Distribution of Home Visits among Early Discharge Women



### Findings:

- **Overall, 41% of women who were discharged early received a home visit.**
  - Ninety-three percent (93%) of women who wanted a home visit actually received one. Eleven (11) women who wanted a visit did not get one.
  - Almost all women discharged early who said they did not want a home visit felt it was not necessary (92%).
- **Thirty-three percent (33%) of women discharged early reported they were not asked if they wanted a home visit.**
  - Women who were not asked were less likely to receive a visit compared to women who were asked (12% vs. 55%).
- **Eighty-six percent (86%) of women discharged early who received a home visit were visited within 48 hours after leaving the hospital.**
- **Three (3) women reported they paid for the home visit out of pocket.**
  - Among women discharged early who received a home visit, 83% said their health insurance paid for the visit, 10% did not remember who paid for the visit, and the rest found other sources of funding.

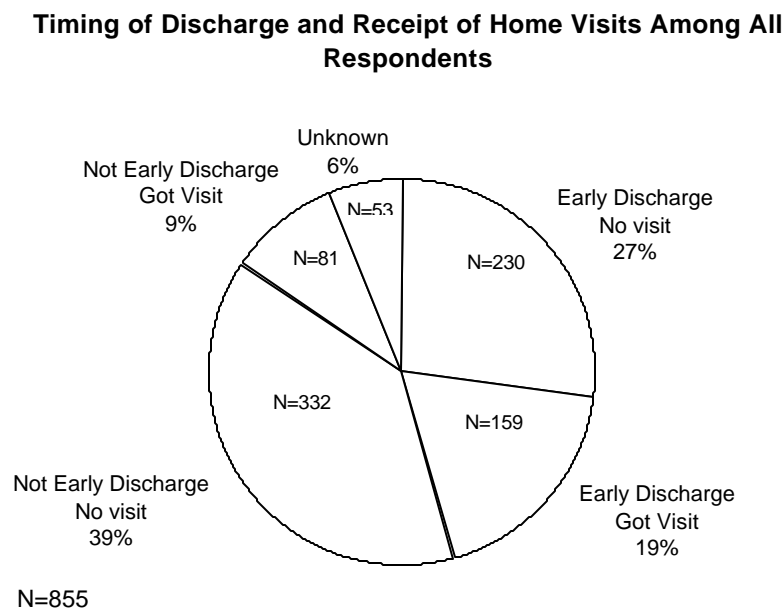
**Comment:**

The results of this study highlight the importance of informed choice. Almost all of the women who were asked if they wanted a home visit and said “yes,” got one. And, almost all of the women who did not want one felt it was not necessary. However, the findings suggest that information affects women’s choices: women who received a visit were more likely to have been asked if they wanted one compared to women who did not receive a visit. It is possible that hospital staff did not ask women whose insurance did not cover the home visit benefit if they wanted a visit. However, the law specifically mandates that women who are discharged early have the right to a visit, therefore all women should be notified of that right, regardless of their insurance status.

While the large majority of early discharge home nursing visits took place within the 48 hour time period mandated by law, about 14% of the visits were delayed. Sometimes delays are unavoidable or at the request of the mother, but according to some of the home care agency staff who were interviewed, delays sometimes occur because the necessary referral information is not received by them in time.

**3. What is the distribution of new mothers according to whether or not they were discharged early and whether or not they received a home visit?**

**Figure 2.**



**Comment:**

To understand the bigger picture of what is happening to new mothers with uncomplicated deliveries, it is helpful to combine length of stay and home visiting information. Figure 2 shows the distribution of all 855 survey respondents. The largest single group of new mothers was those who stayed in the hospital at least the minimum length of time and did not receive a home

visit (39%), followed by women who were discharged early and did not receive a visit (27%). Overall, less than one out of 5 mothers (19%) were discharged early and received a home visit.

***4. Are mothers aware of the law and regulations, and how and when do they learn about them?***

***Findings:***

- **Prior to admission for delivery, 90% of women knew about the law in general; 50% knew about the home visit option.**
- **Women's level of knowledge of the law in general, and the home visit option in particular, was related to a number of demographic factors:**
  - The proportion of women who knew about the law prior to admission for delivery was higher among women from the western metropolitan Boston region (95%) compared to Boston (85%); whites (92%) compared to all others (range 73%-79%); women with any BC/BS plan (91%) compared to Medicaid (78%); women with a BA degree (97%) compared to women with a high school diploma or less (81%); English vs. non-English speakers (91% vs. 75%); and married vs. not married women (93% vs. 76%).
  - On the other hand, the proportion of women who knew about the home visit option prior to admission was higher among blacks (67%) compared to whites (48%), and among women with a high school diploma or less (57%) compared to women with a bachelor's degree (45%).
- **For new mothers, the media was the largest single source of information about the law prior to admission for delivery, and the hospital was the largest source of information about the home visit option.**
- **Forty-one percent (41%) of women reported that someone from the hospital talked to them following delivery about the law and their length of stay and 25% said a doctor or nurse midwife talked to them.**
- **Twenty-one percent (21%) of the new mothers remembered receiving something from the hospital in writing about the law during their hospital stay.**
  - All 46 responding maternity hospitals reported that they distributed written materials about early discharge to families at the time of delivery admission.

***Comment:***

While the overall level of knowledge about the law among new mothers was quite high (90%), the fact that considerably fewer women in certain groups knew about the law is of concern. Women living in the western region of the state, women on Medicaid, black, Hispanic and Asian women, and women with less education, had less knowledge about the law. Given that the largest reported source of information about the law was the media, and the media is no longer reporting regularly on this issue, it is uncertain how women currently are finding out about their rights under this law. Similarly, only half of all women knew about the home visiting option. Greater efforts at informing women about all provisions of the regulations are necessary.

***5. Are providers aware of the law and regulations, and how and when do they learn about them?***

***Findings:***

- **Among providers, familiarity with the regulations varied by particular provision and by provider type.**
  - Overall, more than 90% of the surveyed providers reported they were “very familiar” with the minimum length of stay (LOS) and decision-making provisions. However, fewer pediatricians surveyed were “very familiar” with these provisions compared to obstetricians and nurse midwives.
  - Among those surveyed, fewer pediatricians (75%) were “very familiar” with the home visiting provision of the regulations compared to obstetricians (87%) and nurse midwives (92%).
  - Providers were least familiar with the exemption of self-insured plans due to ERISA: 17% of the obstetricians, 33% of the nurse midwives, and 40% of the pediatricians reported unfamiliarity with the ERISA exemption.
- **Hospitals were cited most often by providers as a source of information about the early discharge regulations.**
  - Over 90% of obstetricians and nurse midwives, and 73% of pediatricians listed hospitals as a source. The media was the second most frequently cited source.

***Comment:***

While most of the obstetric and pediatric providers surveyed were very familiar with some of the provisions of the regulations, pediatricians, in particular, were less familiar with each individual provision, and all three groups were less familiar with the ERISA exemptions and the prohibition on discharge between 8 p.m. and 8 a.m. without the mothers consent.

Thirty-one percent (31%) of surveyed women reported they heard about the law from their doctor or midwife prior to admission for delivery, and 25% reported that they spoke to their doctor or midwife about their length of stay and the law following delivery. Survey results from



obstetric providers suggest that the topic of early discharge is not consistently raised by prenatal providers during the prenatal period. A greater percentage of nurse midwives reported discussing the issue with their prenatal patients compared to obstetricians, however.

Overall, 69% of providers reported the media as a source of information about the early discharge law. Pediatricians, in particular, reported the media as a source of information (77%). As with new mothers who relied on the media, this may suggest that some providers did not have complete information about the law.

#### ***6. How are decisions being made about when new mothers and infants leave the hospital?***

##### ***Findings:***

- **Twelve percent (12%) of women surveyed reported it was not their choice to leave the hospital when they did.**
- **Among women with known time of discharge, only two women who were discharged between 8 p.m. and 8 a.m. reported that it was not their choice to leave at that time.**
- **Sixty-two percent (62%) of obstetric and pediatric providers recommended that women with uncomplicated pregnancies who deliver vaginally and have healthy infants should stay in the hospital for at least 48 hours after delivery.**
  - More than one-third of nurse midwives, however, recommended women leave prior to 48 hours, compared to 20% of pediatricians and 18% of obstetricians.
- **Thirty-three percent (33%) of obstetric providers reported they discuss length of stay with all of their patients.**
  - Nurse midwives were more likely to report discussing LOS with all their patients compared to obstetricians (44% vs. 29%).

##### ***Comment:***

The regulations place the decision to leave the hospital with the mother and her provider, and prohibit discharge between 8 p.m. and 8 a.m. without the mother's consent. The results suggest that, in general, these aspects of the regulations have been implemented successfully, although more than one in 10 women reported that it was not her choice to leave when she did.

All of the post-partum nurses who participated in the in-depth interviews reported they had some involvement in the mother's decision about whether or not to leave the hospital early, but the extent of their involvement differed considerably among the hospitals.

**7. How satisfied are new mothers with the length of their hospital stay and with their home visit?**

**Findings:**

- **Nearly three-quarters (73%) of women surveyed reported they left the hospital when they did, in part, because they felt ready to leave.**
- **Three-quarters of women surveyed felt their length of stay was “about right”, and 24% felt it was “too short.”**
  - The primary reasons given for wanting a longer stay in the hospital were feeling tired and needing more rest (91%), being in pain (66%), wanting more help learning to take care of the baby (41%), the baby’s health (32%), and medical problems (23%).
- **Regardless of whether or not they were discharged early, the vast majority of women felt they got enough information during their hospital stay about key issues.**
  - Most women reported they received enough information about taking care of themselves (85%) and taking care of their baby (80%), as well as enough help making an appointment for a check-up for themselves and their baby (79%).
  - Some women would have liked more information on infant care, information/help with breastfeeding, one-on-one attention/support, and rest/privacy.
- **Ninety-four percent (94%) of women discharged early who received a home visit found the visit helpful.**
- **There have been no appeals made to date by new mothers to the Department of Public Health regarding denial of benefits under this law.**

**Comment:**

Most mothers who responded to the survey reported they were satisfied with the length of their hospital stay, and they felt ready to go home at their time of discharge. However, almost one-quarter felt their stay was too short, regardless of whether or not they were discharged early. The percentage that felt their stay was too short was higher among women who had vaginal deliveries (25%) compared to women who had c-sections (19%).

The mandated minimum length of stay was intended, in part, to allow greater time for teaching new parents about caring for their babies, and ensuring the health of mother and infant. Half of the post-partum nurses interviewed reported that this, in fact, has been the case. Most women felt they were given enough information while in the hospital about caring for themselves and their infants, regardless of whether or not they were discharged early. Almost all the women who received a home nursing visit reported that they found it to be useful.

The early discharge law provides families with the right to appeal to the Department of Public Health if their benefits are denied. No official appeals have been filed with MDPH to date.

#### ***8. Does length of stay and home visiting have an impact on breastfeeding practices?***

##### ***Findings:***

- **Women who left the hospital early and did not receive a home visit did not breastfeed as long as women who either left early and got a visit, or women who stayed for the minimum length of time permitted by the law.**

##### ***Comment:***

Breastfeeding is not always easy and women may stop trying if they do not have adequate information, assistance and support. The percentage of mothers who continued breastfeeding three or more months after the birth of their child was considerably lower among women who were discharged early and did not receive a home nursing visit, as compared to women who received home visits and women who had a longer stay in the hospital. Among first-time mothers, the difference between those who stopped breastfeeding and those who continued was even greater.

#### ***9. How do health care providers feel about the regulations?***

##### ***Findings:***

- **Most providers agreed that mothers and infants generally have benefited from the regulations on length of hospital stay and home visits** (82% of pediatricians, 78% of obstetricians and 66% of nurse midwives).
- **Eighty-seven percent (87%) of the maternity hospitals reported the regulations have provided some benefit to their maternal newborn services.**
  - Benefits included greater time for teaching, improved patient satisfaction, improved maternal and infant care, and improved breastfeeding support.
- **Ninety-five percent (95%) of obstetric and pediatric providers reported that home visits are important for women who are discharged early.**
  - Nearly 2 out of 3 nurse midwives reported that home visits are very important compared to only 42% of obstetricians.

***Comment:***

Most providers were positive about the benefits of the regulations. There were a variety of reasons cited by those who felt they were not as beneficial; some felt that decisions such as how long to stay in the hospital should not be regulated, but should be left up to the providers and their patients; others had concerns about the institutional impact on hospital staffing and bed capacity; and some providers thought the regulations have contributed to an unnecessary use of health care resources because certain women, such as those who have given birth previously, do not need to stay in the hospital as long as the regulations require.

Post-partum nurses interviewed also were positive about the regulations, although they raised a few concerns as well, including patients' lack of awareness about their rights, obstetric providers who do not discuss early discharge with their patients, the exemption of some insurance plans, and some women staying longer than they need to so beds are used inappropriately. In addition, some nurses reported an increase in their workload as a result of having to determine whether or not insurance is exempt and setting up home visits for those who want them.

While almost all providers felt that home visits are important for mothers and infants who are discharged from the hospital early, only about half (51%) felt these visits are very important. Nearly 1 out of 10 obstetricians surveyed felt that home visits are not important at all, while none of the nurse midwives felt that way. The variation among providers in the perception of the importance of a home visit for mothers and infants discharged early may be due to lack of information about what happens during the visit or poor or minimal communication between obstetric and pediatric providers and home care agencies following the visit.

***10. What impact have the regulations had on provider practice?***

***Findings:***

- **Fifty-four percent (54%) of pediatricians reported they schedule first newborn visits sooner for infants discharged early, as compared to other infants.**
- **Twenty-three percent (23%) of pediatricians reported recommending a follow-up visit within 3 days of discharge for infants discharged early.**
  - Fifty-seven percent (57%) of pediatricians reported they schedule first office visits within one week for infants discharged early. In comparison, 23% of pediatricians reported they routinely schedule first visits within one week after leaving the hospital.

- **Over one third (37%) of obstetric and pediatric providers did not know whether or not their early discharge patients had received a home visit.**
  - The percentage of nurse midwives who reported knowing whether or not their patients have had a home visit was considerably higher than it was among obstetricians (83% vs. 62%).

***Comment:***

The vast majority of pediatricians surveyed (94%) routinely recommend a first office visit within two weeks of leaving the hospital. Over half recommend a first visit within one week of discharge for infants who are discharged early.

***11. What has been the impact of the early discharge legislation on the current health care delivery system and what health systems issues have affected implementation?***

***Findings:***

- **The overall capacity of home care agencies to meet the home visiting needs of early discharge mothers and newborns appeared to be sufficient at the time of the interviews.**
- **Longer post-partum stays have resulted in increased demand for maternity beds at some hospitals.**
- **Three of the 10 post-partum nurses interviewed reported that someone from their hospital regularly determined whether women who were referred for a home visit actually received the visit.**
- **Nine of the 10 home care agencies interviewed reported late referrals from hospitals as one reason they were unable to make a visit within 48 hours of discharge.**

***Comment:***

All 10 of the home care agencies that participated in the in-depth interviews employed registered nurses trained in maternal and child health (MCH). Only one of the agencies was unable to accept all the referrals it received due to inadequate staffing.

The home visit referral process varies considerably among hospitals. According to post-partum nurses and home care agency staff interviewed, complexities in referral systems could result in delays in referrals from hospitals to home care agencies, and consequently, delays in home visits.

## CONCLUSIONS

The state regulations mandating minimum hospital stays after childbirth and follow-up home nursing visits seem to have been implemented fairly consistently across the state, with few reported problems. The biggest source of confusion about the regulations has been determining which insurance plans are exempt from the mandates. Implementation of the federal law in January, 1998, eliminated the exemption for length of stay insurance coverage, but confusion over which insurance plans are required to cover a home visit and which are exempt remain.

Efforts should be made to ensure that all obstetric and pediatric providers have information about all the various provisions of the state and federal laws, and they should be encouraged to discuss these issues with all of their patients.

Based on findings from the mothers' survey, there appears to be a relationship between length of stay in the hospital, home nursing visits, and success at breastfeeding. In this survey, women who were discharged early and did not receive a home nursing visit stopped breastfeeding earlier than other women. Women who had a home visit, or who stayed in the hospital longer may have gotten the added education, help and support they needed to overcome any difficulties they may have had breastfeeding. First-time mothers were at even greater risk of stopping breastfeeding without this additional care.

When breastfeeding women leave the hospital before their milk comes in, it has been suggested that they and their infants be seen within four or five days of birth to make sure that the infant is feeding properly and not getting dehydrated<sup>7</sup>. This visit could be accomplished either by a home nursing visit or a pediatric clinic visit. Better communication and coordination among home care agencies, hospitals and pediatricians would minimize duplication of services and optimize the coordination and continuity of care that is so important early in life.

The impact of length of hospital stay, with and without a home nursing visit, on other aspects of maternal and infant health, use of emergency and ambulatory health care, and general parenting skills, requires further examination.

Finally, as more women have home nursing visits, either as a result of the early discharge law or other state programs<sup>8</sup>, it becomes even more important that communication among all the health care players (hospitals, home care agencies and providers) is timely and accurate. In particular, obstetric and pediatric providers are key to making sure that patients who want one receive a home visit. Timely communication among hospital staff, home care agency staff and providers also is critical to ensure continuity of care and improve infant health. The scheduling of follow-up care for newborns and new mothers requires taking many factors into account, including timing of discharge, breastfeeding status, parity and whether or not a home visit was received.

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<sup>7</sup> Cooper WO, Atherton HD, Kahana M, Kotagal UR. Increased incidence of severe breastfeeding malnutrition and hypernatremia in a metropolitan area. *Pediatrics*, 1995;96(5):957-960.

<sup>8</sup> Other state home visiting programs include Healthy Families, First Steps and First Link.